In the Specification

Please replace paragraph [0003] with the following annotated paragraph:

[0003]   In order to reduce the number of GPIO pins needed, the matrix-type keypad device is thus developed. In the design of the matrix-type keypad circuit, crisscross lines are arranged in a matrix, and every key is arranged at a node of an intersection point between a row line and a column line. The status of the key is scanned and then reported to the controller. Since the controller has to continuously scan the status of the matrix composed of the keypad device, the controller needs a specific algorithm to incorporate with the operation of the keypad matrix, consuming additional power and resources of the controller. On the other hand, ~~since~~ the column signals and row signals of the matrix circuit ~~has to be transferred to the input~~ are coupled to a number of GPIO pins of the controller. With the number of keys being set at a predetermined number, there is [[not]] no significant decrease in the number of controller pins required. Thus, the matrix-type keypad device is usually applied in the occasions when the number of keys required is large. For instance, the matrix-type keypad device can be applied in a computer keyboard.

Please replace paragraph [0016] with the following annotated paragraph:

[0016]   Of the four keys only key A is pressed, so only the key A ~~connecting~~ connected to the resistor R and the input/output pin KP is in a close ~~status~~ state, while the keys B, C, and D ~~which disconnect the three resistors, which connect to keys B, C and, D~~ connected to the other three resistors, and the input/output pin KP [[is]] are in an open ~~status~~ state. Therefore, the resistor R connected to key A is driven by the drive voltage Vg and thus provides a high voltage, while the other three resistors provide a low voltage causing the keypad module 15 to generate a "0001" parallel signal corresponding to the parallel signal DP of FIG. 1. Obviously, if both key A and

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key C are pressed, the keypad module 15 will generate a "0101" parallel signal. If all the keys are pressed, the keypad module 15 will generate an "1111" parallel signal. Therefore, the value of the parallel signal can indicate the status of the keypad module 15.

Please replace paragraph [0017] with the following annotated paragraph:

[0017]   After the parallel signal having been generated, the controller 11 will feed the load signal LOAD to the parallel/serial conversion device 12 causing the parallel/serial conversion device 12 to read the parallel signals in parallel and have them stored. Next, the controller 11 simply needs to feed the clock signal CLK to the parallel/serial conversion device 12 in order that the parallel signal can be output in sequence accordingly to generate the serial signal ~~DATA,~~ DATA. It is noteworthy that the ~~controller~~ keypad module 15 according to the invention parallelly feeds the parallel signals DP to the parallel/serial conversion device 12 at the same time, and the parallel/serial conversion device 12 converts the parallel signals DP into serial signals DATA which is output sequentially. If the user presses several keys at a time, the status of the key can still be correctly determined.

Please replace paragraph [0018] with the following annotated paragraph:

[0018] As for the aspect of reducing the system resource usage, the method for generating the interrupt signal adopted in the invention has great advantages. This is because the controller does not need to ~~response~~ respond to the keypad module before at least one of the keys is pressed. Only after the key has been pressed, an interrupt signal will be generated to inform the controller of the need to process ensuing jobs such as data input and recognition. That is, the controller does not need to process the output signal from the keypad module before an interrupt

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signal is received. Thus, there is no need to continuously scan and query the status of the

keyboard device, thus the requirement of system resources will be greatly reduced.

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